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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,615	11/07/2001	William Edward Atherton	RPS920010104US1	3306

7590 04/29/2005

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EXAMINER

ELMORE, REBA I

ART UNIT PAPER NUMBER

2187

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/008,615

Applicant(s)

ATHERTON ET AL.

Examiner

Reba I. Elmore

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-17 and 19-37 is/are rejected.  
7) ☒ Claim(s) 18,38 and 39 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-39 are presented for examination.

### *SPECIFICATON*

2. The objection to the title of the invention is *withdrawn* due to the amendment.
3. The objection abstract of the disclosure is *withdrawn* due to the amendment.
4. The objections to disclosure are *withdrawn* due to the amendment.
5. The following objection to the disclosure is given due to the amendment which added the cited language to claim 1 and 19.
6. The amendment filed March 23 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "*which program code forces an ultimate selection of a memory block corresponding to the pre-selected physical address*". The originally filed specification does not appear to contain language directed toward 'an ultimate selection' being forced by the program code.

Applicant is required to cancel the new matter in the reply to this Office Action.

7. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *CLAIM OBJECTIONS*

8. The objection to the claims is *withdrawn* due to the amendment.

**35 USC § 112, 1<sup>st</sup> PARAGRAPH**

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claim 1-14 and 19-33 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new matter which is not supported by the original disclosure is as follows: ***“which program code forces an ultimate selection of a memory block corresponding to the pre-selected physical address”***. The originally filed specification does not appear to contain language directed toward ‘an ultimate selection’ being forced by the program code.

**35 USC § 101**

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 19-33 are rejected under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter.
13. Claims 19-33 are not limited to tangible embodiments. In view of Applicant’s disclosure, specification page 22, line 18 to page 23, line 7, the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., examples including recordable media such as floppy disk, hard disk drives and CD-ROMs) and intangible

embodiments (e.g., transmission media such as digital and analog communication links). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

*35 USC § 102*

14. The rejection of claims 15-17 and 34-37 as being anticipated by Nakagawa is *maintained* and repeated below.

15. Claims 1-14 and 19-33 have been withdrawn from this rejection due to the amendment, however, upon the required cancellation of the new matter, this rejection will again apply to claims 1-5, 7-8, 10-14, 19-23, 25-26 and 28-33.

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 15-17 and 34-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagawa.

18. Nakagawa teaches the invention (claim 15) as claimed including a method for allocating memory on a data processing system comprising:

receiving a pre-programmed specific physical memory location to allocate to processes of an application (e.g., see Figure 4);

executing the application on the data processing system, wherein the application requires access to memory of the data processing system (e.g., see Figure 4); and,

responsive to an operation requesting access to memory by the application, automatically assigning the pre-programmed specific physical memory location to the operation, wherein only the pre-programmed specific physical memory location is assigned to that application (e.g., see Figure 4).

As to claim 16, Nakagawa teaches:

calculating a physical memory location corresponding to a virtual address provided by the operation (e.g., see Figure 5);

interactively allocating memory blocks and comparing a physical address of the allocated memory blocks with the specific physical memory location, wherein, when the allocated memory block is within the physical memory location the allocated memory block is passed to the application (e.g., see Figure 5).

As to claim 17, Nakagawa teaches the allocated memory block comprising all required memory within the specific physical memory location as well as other physical memory not within the specific physical memory location, de-allocating the other physical memory within the memory block as maintaining and controlling the in-use list (e.g., see Figure 6).

19. Nakagawa teaches the invention (claim 34) as claimed including a data processing system comprising:

a processor that executes application processes (e.g., see Figure 3);

a memory interconnect to the processor (e.g., see Figure 3);

an operating system (e.g., see col. 1, lines 17-30); and,

means for allocating only pre-selected, specific physical memory locations to the application processes corresponding to a pre-programmed physical location specified for the application processes (e.g., see Figures 3-4).

As to claim 35, Nakagawa teaches the means comprising:

means for receiving a specific physical memory location to allocate to processes of an application (e.g., see Figures 3-4);

means for executing the application on the data processing system, wherein the application requires access to memory of the data processing system (e.g., see Figures 3-4); and,

means, responsive to an operation requesting access to memory by the application, for automatically assigning the specific physical memory location to the operation (e.g., see Figures 3-4).

As to claim 36, Nakagawa teaches the system further comprising:

means for calculating a physical memory location corresponding to a virtual address provided by the operation (e.g., see col. 7, lines 32-54); and,

means for interactively allocating memory blocks and comparing a physical address of the allocated memory blocks with the specific physical memory location, wherein, when the allocated memory block is within the physical memory location the allocated memory block is passed to the application (e.g., see Figures 3-4).

As to claim 37, Nakagawa teaches the means, responsive to some of the allocated memory block comprising all the required memory within the specific memory location, for de-allocating all allocated memory block not within the specific physical memory location as maintaining and controlling the in-use list (e.g., see Figure 6).

***ALLOWABLE SUBJECT MATTER***

20. Claims 6, 9, 24 and 27 are considered allowable over the prior art of record. However, these claims are rejected under 35 USC § 112, 1<sup>st</sup> paragraph as being dependent upon claims 1 and 19 which contain new matter. Upon the cancellation of the new matter, these claims would be objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

21. Claims 18 and 38-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***RESPONSE TO APPLICANT'S REMARKS***

22. Applicant's arguments filed March 23, 2005 have been fully considered but they are not persuasive.

23. As to the remarks concerning the querying of a physical address to determine if it is a programmatically pre-selected physical address desired by the application, the reference fully teaches this limitation to the extent required by the actual claim language. The reference uses storage devices for file storage, a dedicated memory space to program code, a dedicated memory space for process execution as well as a cache memory specifically having space for program code and specifically having space for data. There is memory dedicated for a system library. The reference also teaches external memory space. None of these memories can be utilized by the programs without the program code specifying the use of certain memory blocks in the different memories even if it is a determination to use the next available memory block. This is still a specific dedication of memory. The program code automatically stores information in

pre-selected memory physical addresses determined by the program code. For instance, the use of the external memory must be specifically determined by the program for it to be used. The system automatically determines whether it needs storage space for instructions or data and utilizes difference physical memory for these different types of information.

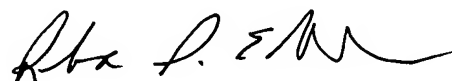
24. This office action is not made final due to the newly presented rejection of claims 19-33 as being non-statutory under 35 USC § 101.

***CONCLUSION***

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reba I. Elmore, whose telephone number is (571) 272-4192. The examiner can normally be reached on M-TH from 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor for AU 2187, Donald Sparks, can be reached for general questions concerning this application at (571) 272-4201. Additionally, the official fax phone number for the art unit is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center central telephone number is (571) 272-2100.



Reba I. Elmore  
Primary Patent Examiner  
Art Unit 2187

April 28, 2005